



Certificate No:
TAD00001J1

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Miscellaneous

with type designation(s)
PLUG, FLUID-END DISCHARGE PORT (P/N: P568910)
NUT WING, DISCHARGE PORT (P/N: P568909)

Issued to

FMC Technologies Inc. - Fluid Control
Stephenville, TX, USA

is found to comply with

DNV-OS-E101 – Drilling facilities, Edition July 2021

DNV statutory interpretations DNV-SI-0166 – Verification for compliance with Norwegian shelf regulations, Edition July 2021

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Issued at **Houston** on **2023-01-31**

This Certificate is valid until **2028-01-30**.

for **DNV**

DNV local unit: **Houston, Approval CMC**

Approval Engineer: **Parna Deljo/Maggie Wang**

Mark Miser
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Design Codes/ Standards Used as References

API 6A, Specification for Wellhead and Tree Equipment, 21st Ed.

Product description

<u>Part No.</u>	<u>Rev.</u>	<u>Description</u>
P568910	B	PLUG, FLUID-END DISCHARGE PORT DNV MONOGRAMMED AND ABS CERTIFIED F/SLB ONLY
P568909	A	NUT WING, DISCHARGE PORT DNV MONOGRAMMED AND ABS CERTIFIED F/SLB ONLY

Application/Limitation

<u>Design Parameters</u>	<u>Value</u>	<u>(Equivalent)</u>
Maximum Working Pressure	: 15,000 psi	(103.4 MPa)
Hydrostatic Shell Test Pressure	: 22,500 psi	(155.1 MPa)
Minimum Design Temperature	: -20°F	(-29°C)
Maximum Design Temperature	: 200°F	(93°C)
Service	: Standard	

Type Approval documentation

Tests carried out

The components have been tested previously as a part of an assembly.

Marking of product

For traceability the following marking is to be carried out on each product:

1. Serial No.
2. Manufacturer's name or trademark
3. Additional Marking at the manufacturer's discretion

Periodical assessment

Periodical assessments for type approvals will be required after two years (+/- 90 days) and after three-and-a-half years (+/- 90 days) in accordance with DNV-CP-0338, Section 4.

Other Conditions/Comments

1. Procedures related to testing, welding, NDT, and other quality control requirements are to be reviewed/approved by DNV's local surveyor.
2. When DNV product Certification is required, each product is to be surveyed during fabrication in accordance with the requirements for Category I equipment as defined in DNV's Offshore Standard DNV-OS-E101.
3. DNV ref: A1316360

END OF CERTIFICATE